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REMARKS

Claims 1-4, 6-11, 14, 16-18 are pending. Claim 11 had been withdrawn from consideration as being drawn to a non-elected claim. Claim 1 is currently amended.

The Office Action has rejected claims 1-4, 6-11, 14, 16 and 17 under 35 U.S.C. §103(a) as allegedly being unpatentable over Chen et al. (WO 02/02279) in view of Grumbine et al. (U.S. Patent Application 20030194959). The Office Action States that Chen et al. fail to teach a specific void volume, or a specific average groove width of the first, or second, or the combination of first and second grooves. The Office Action relies on Grumbine et al. to provide the teaching of a polishing pad having a void volume of between 25% and 50%. The Office Action asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the Chen et al. pad with the claimed void volume as taught by Grumbine et al., to allow polishing solution to be transported across the pad, as is known in the art.

The applicant respectfully disagrees. Applicants have amended claim 1 to include the limitation of a void volume of about 50% or more. Support for the amendment is found in the original specification, for example at paragraph [0030]. As is well-settled, in order to establish a prima facie case of obviousness, three basic criteria must be met: (a) there must be some suggestion or motivation to modify the reference or to combine reference teachings, (b) there must be a reasonable expectation of success, and (c) the combination of the prior art references must teach or suggest all the claim limitations. See e.g., M.P.E.P. § 2143 (8th edition as revised August 2005). The only mention of a void volume of between 25% and 50% in the Grumbine et al. reference is in the Background of the Invention section and refers to the teaching of U.S Patents 6,062,968 and 6,126,532. Neither of these references provides any teaching of grooves or of using void volume to allow polishing solution to be transported across the pad. These references teach void volume of pores created by irregularly shaped particles within the substrate. Therefore, a person of skill in the art, when confronted with the same problem as the applicant and with no knowledge of the present invention, would not have been motivated to select the element of void volume from the Grumbine et al. reference for combination in the manner claimed because the void volume referred to by Grumbine has nothing to do with grooves in a pad. Therefore the Grumbine et al. reference does not teach a claim limitation. Additionally, the Grumbine et al. reference

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fails to motivate or suggest the combination, and provides no reasonable expectation of success. Therefore, the rejection of claims 1-4, 6-11, 14, 16 and 17 under 35 U.S.C. §103(a) is improper because none of the criteria are met. Applicants respectfully request that the rejection under 35 U.S.C. §103(a) be withdrawn.

The Office Action has rejected claims 18-21 under 35 U.S.C. §103(a) as allegedly being unpatentable over Chen et al. in view of Grumbine et al., as applied to claim 1 and further in view of Wadensweiler et al. (U.S. 6,841,057). The Office Action states that Chen et al. as modified by Grumbine et al. does not disclose that the polishing pad comprises abrasive, or that the body of the polishing pad is conductive, comprising conductive elements or a conductive polymer. The Office Action states that Wadensweiler et al. teach that it is known to make polishing pads abrasive, that when used with a polishing medium, facilitates material removal from the substrate. The Office Action asserts that it would have been obvious to one of ordinary skill in the art to have provided Chen et al. with the abrasive taught by Wadensweiler et al. to facilitate material removal from the substrate. The Office Action further asserts that based on the teachings of Wadensweiler et al., it would have been obvious to one of ordinary skill in the art to have made the pad of Chen et al. conductive though the use of conductive elements or conductive polymer, to allow the pad to be used in eCMP of the substrate, to remove material that is difficult to remove through CMP.

The applicant respectfully disagrees. The deficiencies of the Chen et al. and Grumbine et al. references were discussed previously. Whatever Wadensweiler et al. teaches, the combination of these references do not teach or suggest all the limitations of the applicant's claim. Specifically the references do not teach or suggest a polishing pad having a void volume of 50% or greater.

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Entry of the above remarks and amendments is respectfully requested under 37 CFR §1.114(c). In view of the above remarks and amendments, reconsideration and allowance is respectfully requested. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned at the number listed.

Respectfully submitted,

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